Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1.   (Cancelled)

2.   (Currently Amended) The method according to claim [1] 9, ~~wherein the controlling node is a more congested node, the method further comprising~~ wherein the control packet has

~~broadcasting from the controlling node a packet which is operative to request poll signals from those nodes desiring resources of the controlling node;~~

~~sending from the controlling nodes requests of optimally transmitting data between the controlling node and the requesting nodes;~~

~~broadcasting a control packet with~~ rules information from the ~~congested~~ controlling node that directs the requesting nodes when to send and receive data; and ~~thereafter~~ wherein the method further comprises:

causing each individual requesting node to transmit local data in turn to the controlling node. .

3.   (Currently Amended) The method of claim 2, further including ~~thereafter~~:

scheduling each individual requesting node which receives ~~data~~ rules information from the controlling node, ~~if such data is available, as scheduled by the controlling node~~; thereafter

receiving at each individual requesting node acknowledgments ~~of~~ from the controlling node, the acknowledgments being for corresponding individually transmitted data packets from the ~~controlling~~ requesting node; and thereafter

transmitting from each individual requesting node further acknowledgments to receipt of data if data has been previously transmitted to it by the controlling node.

4.   (Currently Amended) The method according to claim 3, further comprising:

purging data packets from a transmitting node upon receipt of acknowledgment of successful reception of said data packets.

5.   (Cancelled)

6.   (Currently Amended) The apparatus according to claim [5] 10, ~~wherein the controlling node is a more congested node and wherein the controlling node is operative to broadcast a packet requesting poll signals from the nodes desiring resources of the controlling node and the controlling node is operative to have sent the requests of optimally transmitting data between the controlling node and the requesting nodes,~~ further comprising:

~~means operative to broadcast a control packet from the congested node that directs the requesting nodes when to send and receive data packets; and~~

means to cause thereafter each individual requesting node to transmit its data packets in turn to the controlling node.

7.   (Currently Amended) The apparatus according to claim 6, further including:

means at said controlling node for scheduling transmitting times for each individual requesting node which receives ~~data~~ **rules information** from the controlling node, ~~if such data is available~~;

means for receiving at each individual requesting node acknowledgments of corresponding individually transmitted data packets from the ~~controlling~~ **requesting** node; and

means for transmitting from each individual requesting node further acknowledgments to receipt of data if data has been previously transmitted to it by the controlling node.

8.   (Currently Amended) The apparatus according to claim 7, further comprising:

means for purging data packets from a transmitting node upon receipt of acknowledgment of successful reception of said data packets.

9.   (New) In a mesh network having a plurality of communication nodes, wherein one or more nodes may be either a contending node when sending data for transmission within the mesh network or a controlling node for receiving data for transmission within the mesh network, a method for providing contending nodes with access to a congested controlling node, the method comprising:

broadcasting, at a contending node, requests for access to a controlling node until receipt, at the contending node, of a poll request packet broadcast from the controlling node, the poll request packet containing information indicating availability of a communication slot;

broadcasting from the controlling node to a plurality of contending nodes the poll request packet when the controlling node is ready to provide services;

directing from the contending node a poll packet to request access to the controlling node; and

broadcasting from the controlling node to all of the plurality of contending nodes a control packet containing rules information for each contending node requesting access to follow in order to send data to the controlling node.

10.   (New) In a mesh network having a plurality of communications nodes, wherein one or more modes may be either a contending node or a controlling node, an apparatus for requesting access to a congested controlling node, comprising:

means for withholding, at a requesting node, requests for access to said congested node while awaiting receipt, at said requesting node, of a poll request packet containing a first datum of information indicating availability of a communication slot;

broadcasting means for broadcasting from said congested node said poll request packet when said congested node is ready to provide services; and thereafter

means at said requesting node for directing from said requesting node a poll packet to request access to the congested node; and

means operative to broadcast a control packet from the congested node to all the requesting nodes having rules information that directs the requesting nodes when to send and receive data packets.

11. (New) A method for requesting access to a congested, controlling communication node by contending communication nodes in a wireless mesh network, the mesh network having one or more communication nodes that may be either a controlling node or a contending node, the method comprising:

withholding, at a contending node, requests for access to a controlling node until receipt, at the contending node, of a poll request packet broadcast from the controlling node, the poll request packet containing information indicating availability of a communication slot;

broadcasting from the controlling node to a plurality of contending nodes the poll request packet when the controlling node is ready to provide services;

directing from the contending node a poll packet to request access to the controlling node;

broadcasting from the controlling node to the plurality of contending nodes a contention resolution packet, the contention resolution packet containing rules information for each contending node requesting access to follow in order to send data to the controlling node;

in response to the contention resolution packet, causing each contending node requesting access to transmit data to the controlling node in accordance with the rules information; and

broadcasting from the controlling node a broadcast acknowledgement for data received by the controlling node, the broadcast acknowledgement received by all of the plurality of contending nodes, including both winner contending nodes having requested access granted by the controlling node and loser contending nodes not having requested access granted by the controlling node.

12. (New) The method of claim 11, further comprising:

broadcasting from each contending node requesting access to the controlling node, an acknowledgement for data received by the contending node from the controlling node.

13. (New) The method of claim 12, wherein the controlling node is in a PRP state during the steps of broadcasting the poll request packet, the contention resolution packet and the

broadcast acknowledgement, and wherein the controlling node exits the PRP state when the controlling node is no longer congested.

14.   (New) The method of claim 11, further comprising:

purging data at any contending node upon receipt of the controlling node broadcast acknowledgement, wherein such acknowledgement verifies successful transmission of the data from that contending node.

15.   (New) The method of claim 11, further comprises:

providing poll minislots following the broadcasted poll request packet, the minislots establishing times during which contending nodes may direct poll packets for requesting access to the controlling node.

16.   (New) The method of claim 15, wherein the minislots comprise:

reserved minislots that are reserved for contending nodes already assigned minislots for requesting access to the controlling node; and

contention minislots for contending nodes not already assigned minislots for requesting access.

17.   (New) The method of claim 16, wherein the contention minislots are used randomly by contending nodes not already assigned minislots.

18.   (New) In a mesh network having a plurality of client nodes that access a controlling node for sending data through the mesh network, a method for the client nodes to access the controlling node, comprising:

each client node accessing the controlling node in a non-PRP mode where multiple client nodes are not contending for access to the controlling node; and

each client node accessing the controlling node in a PRP mode where multiple client nodes are contending for access to the controlling node, the PRP mode comprising:

withholding, at a contending node, requests for access to a controlling node until receipt, at the contending node, of a poll request packet broadcast from the controlling

node, the poll request packet containing information indicating availability of a communication slot;

      broadcasting from the controlling node to a plurality of contending nodes the poll request packet when the controlling node is ready to provide services;

      directing from the contending node a poll packet to request access to the controlling node;

      broadcasting from the controlling node to the plurality of contending nodes a contention resolution packet, the contention resolution packet containing rules information for each contending node requesting access to follow in order to send data to the controlling node;

      in response to the contention resolution packet, causing each contending node requesting access to transmit data to the controlling node in accordance with the rules information; and

      broadcasting from the controlling node a broadcast acknowledgement for data received by the controlling node, the broadcast acknowledgement received by the plurality of contenting nodes, including both winner contending nodes having requested access granted by the controlling node and loser contending nodes not having requested access granted by the controlling node.